

### **REMARKS**

This Application has been carefully reviewed in light of the Office Action. Applicant appreciates the Examiner's consideration of the Application. In order to advance prosecution of this Application, Applicant has responded to each notation by the Examiner. Applicant respectfully requests reconsideration and favorable action in this case.

### **Claim Amendments**

Applicant has amended independent Claims 1 and 11 to recite "wherein the 'in' table provides, during a search, an initial information entry identifier, and wherein the 'out' table provides a result of the search using the initial information entry identifier." The Specification supports this amendment. *See, e.g.*, Specification, Page 3, Line 27 - Page 4, Line 2; Page 9, Lines 8-11; Page 9, Lines 19-20.

Applicant has further amended independent Claims 1 and 11 to recite "a relational database." The Specification supports this amendment. *See, e.g.*, Specification, Page 1, Lines 6-7.

### **Section 112, 1st Paragraph, Rejections**

The Examiner rejects Claims 1, 11, and 17-22 under 35 U.S.C. § 112, first paragraph, stating that the claims fail to comply with the enablement requirement. Applicant respectfully traverses these rejections.

Claims 1 and 11 have been amended to remove the limitation "preventing the amended information entry from being searchable until at least the 'in' table includes the amended information entry," rendering their rejections moot.

Furthermore, the Specification clearly supports the limitations of Claims 17-22. *See, e.g.*, Specification, Page 5, Lines 17-31. For example, the Specification clearly recites that, in one embodiment:

The information is then added to the search table, that is the 'in' table, such that the information ***is visible and searchable so that all corresponding information can be retrieved***. Thus, according to this embodiment of the present application, information to be added to a database is ***first prebuilt in a non-visible table before the information is made visible***. As a result, if the information is searched prior to both 'in' and 'out' tables being completed, the ***'in' table will not be active*** and the search returns a partially updated result. In other words, as rows are added to the 'in' table, ***the entry gradually***

*becomes visible*, and any search (on an ‘in’ table attribute) if found for a partially visible entry, the complete entry will be read.

(Specification, Page 5, Lines 19-29 (emphasis added).)

For at least this reason, Claims 17-22 are allowable under 35 U.S.C. § 112, first paragraph. Accordingly, Applicant respectfully requests reconsideration and allowance of Claims 17-22.

### **Section 112, 2nd Paragraph, Rejections**

The Examiner rejects Claims 1, 11, and 17-22 under 35 U.S.C. § 112, second paragraph, stating that the claims fail to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Applicant respectfully traverses these rejections.

The Examiner contends that the Specification is silent with regard to “preventing the amended information entry from being searchable until at least the ‘in’ table includes the amended information entry.” Claims 1 and 11 have been amended to remove this limitation, rendering their rejections moot. Furthermore, Applicant respectfully submits that the Specification clearly supports this limitation, as is discussed above. *See also* Specification, Page 5, Lines 17-31.

For at least this reason, Claims 17-22 are allowable under 35 U.S.C. § 112, second paragraph. Accordingly, Applicant respectfully requests reconsideration and allowance of Claims 17-22.

### **Section 101 Rejection**

The Examiner rejects Claims 1-5, 11-12, and 15-22 under 35 U.S.C. § 101, stating that the claims deal with an abstract idea. (Office Action, Pages 8-9.) Applicant respectfully traverses these rejections. However, in order to advance prosecution, Applicant has amended Claims 1 and 11 to include “amending the information entry in the relational database system by employing the instruction or operation.”

Furthermore, Applicant respectfully points out that the M.P.E.P. clearly states that a practical application of an abstract idea is eligible for patent protection. M.P.E.P. § 2106(IV)(C)(2). Additionally, the M.P.E.P. further states that “[a] claimed invention is

directed to a practical application” when it “otherwise produces a useful, concrete and tangible result.” M.P.E.P. § 2106(IV)(C)(2).

In applying this “useful, concrete and tangible result” standard, the Federal Circuit in *State Street* explicitly held:

***[T]ransformation of data***, representing discrete dollar amounts, by a machine through a series of mathematical calculations into a final share price, constitutes a practical application of a mathematical algorithm, formula, or calculation, because it ***produces ‘a useful, concrete, and tangible result’—a final share price momentarily fixed for recording and reporting purposes*** and even accepted and relied upon by regulatory authorities and in subsequent trades.”

*State Street Bank & Trust Co. v. Signature Financial Group Inc.*, 149 F.3d 1368, 1373 (Fed. Cir. 1998) (emphasis added).

Claim 1, as amended, clearly states “***amending the information entry*** in the relational database system by employing the instruction or operation.” (emphasis added). Just as the transformation of data into a final share price produced a useful, concrete, and tangible result in *State Street*, amending the information entry in the relational database system also produces a useful, concrete, and tangible result.

For at least this reason, independent Claim 1 and its dependent claims are allowable under 35 U.S.C. § 101. For analogous reasons, independent Claim 11 and its dependent claim are allowable under 35 U.S.C. § 101. Accordingly, Applicant respectfully requests reconsideration and allowance of Claims 1-5, 11-12 and 15-22.

The Examiner further rejects Claims 11-12, 16, 18, 20, and 22 under 35 U.S.C. § 101, stating that the claims are software per se. (Office Action, Pages 8-9.) Applicant respectfully traverses these rejections. However, in order to advance prosecution, Applicant has amended Claim 11 to include “a computer-readable medium” and “means, encoded in the computer-readable medium.” According to the M.P.E.P., “a claimed computer-readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory.” M.P.E.P. § 2106.01(I).

For at least this reason, independent Claim 11 and its dependent claims are allowable under 35 U.S.C. § 101. Accordingly, Applicant respectfully requests reconsideration and allowance of Claims 11-12, 16, 18, 20, and 22.

**Section 103(a) Rejections**

The Examiner rejects Claims 1-5, 11-12, and 15-22 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,085,188 to Bachmann et al. ("*Bachmann*") in view of U.S. Patent No. 6,347,312 to Byrne et al. ("*Byrne*"). Applicant respectfully traverses these rejections for the reasons discussed below.

Applicant respectfully submits that the combination of *Bachmann* and *Byrne* proposed by the Examiner fails to disclose, teach, or suggest elements specifically recited in Applicant's claims. For example, the *Bachmann-Byrne* combination proposed by the Examiner fails to disclose, teach, or suggest the following recited in amended independent Claim 1:

determining whether an instruction or operation adds an information entry to or removes the information entry from a relational database system, wherein for an add entry operation, the information entry is first added to an 'out' table in the relational database system, wherein for a remove entry operation, the information entry is first removed from an 'in' table in the relational database system, wherein the 'in' table provides, during a search, an initial information entry identifier, and wherein the 'out' table provides a result of the search using the initial information entry identifier.

The Examiner relies on parent and child tables of *Bachmann* to teach a prior version of Claim 1. (Office Action, Page 5 (stating "Bachmann teaches the parent and child table, which is analogous to using two tables of in and out").) Whether or not this is correct, *Bachmann* fails to disclose the elements of amended independent Claim 1. For example, according to *Bachmann*:

The routine begins at step 80. At step 82, ***the routine retrieves entry EIDs [(unique identifiers)] which match the filter criteria from the attribute tables.*** Step 82 thus outputs a first set of EIDs that appear to match the search criteria. ***This set is then filtered using the descendant table as will be seen.***

(*Bachmann*, Col. 7, Lines 18-23 (emphasis added); *see also* *Bachmann*, Col. 7, Lines 42-47 (stating that the EIDs are first retrieved from the attribute tables and then used with the parent table).) That is, not only is the ***initial EID retrieved from the attribute tables*** (and not the parent or child tables) but the initial EID is retrieved from the attribute tables before the method even proceeds to the parent and child tables. In fact, in some cases, the parent and

child tables are not even used at all. (*Bachmann*, Col. 6, Lines 23-24 (stating “[g]enerally the tables are not required to be used in a base level search”).)

As a result, *Bachmann* fails to disclose, teach, or suggest “wherein ***the ‘in’ table provides***, during a search, ***an initial information entry identifier***, and wherein the ‘out’ table provides a result of the search using the initial information entry identifier” of Claim 1 (emphasis added). Thus, the *Bachmann-Byrne* combination proposed by the Examiner fails to disclose, teach, or suggest the elements of amended independent Claim 1. For at least these reasons, independent Claim 1 and its dependent claims are allowable under 35 U.S.C. § 103. For analogous reasons, independent Claim 11 and its respective dependent claims are allowable under 35 U.S.C. § 103. Accordingly, Applicant respectfully requests reconsideration and allowance of Claims 1-5, 11-12, and 15-22.

The Examiner further relies on Type I and Type II caches of *Byrne* to teach a prior version of Claim 1. (Office Action, Page 5.) Whether or not this is correct, *Byrne* fails to disclose the elements of amended independent Claim 1. For example, according to *Byrne*:

By implementing the Type I and Type II caches in the directory service local storage area, repetitive search queries are handled ***without resort to the relational database 38***.

(*Byrne*, Col. 6, Lines 1-3 (emphasis added).) That is, the Type I and Type II caches are not located in the relational database. As a result, *Byrne* fails to disclose, teach, or suggest “wherein for an add entry operation, the information entry is first added to ***an ‘out’ table in the relational database system***, wherein for a remove entry operation, the information entry is first removed from ***an ‘in’ table in the relational database system***” of Claim 1 (emphasis added).

Furthermore, modifying the Type I and Type II caches of *Byrne* to locate them in a relational database system would clearly render *Byrne* unsatisfactory for its intended purposes. “If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification.” M.P.E.P. § 2143.01(V) (citing *In re Gordon*, 733 F.2d 900 (Fed. Cir. 1984)).

*Byrne* clearly states that the purpose of the Type I and Type II caches is so that “the cached search results are then used ***in lieu of accessing the relational database*** to increase search efficiency.” (*Byrne*, Abstract (emphasis added).) Modifying the Type I and Type II

caches of *Byrne* to locate them in a relational database system would require the relational database of *Byrne* to be accessed, contrary to the entire intended purpose of *Byrne*. As a result, the Type I and Type II caches of *Byrne* cannot be modified to disclose, teach, or suggest the elements of Claim 1.

Consequently, the *Bachmann-Byrne* combination proposed by the Examiner fails to disclose, teach, or suggest the elements of amended independent Claim 1. For at least these reasons, independent Claim 1 and its dependent claims are allowable under 35 U.S.C. § 103. For analogous reasons, independent Claim 11 and its dependent claims are allowable under 35 U.S.C. § 103. Accordingly, Applicant respectfully requests reconsideration and allowance of Claims 1-5, 11-12, and 15-22.

**CONCLUSION**

Applicant has made an earnest attempt to place this case in condition for allowance. For at least the foregoing reasons, Applicant respectfully requests full allowance of all the pending claims.

If the Examiner believes a telephone conference would advance prosecution of this case in any way, the Examiner is invited to contact Keiko Ichiye, the Attorney for Applicant, at the Examiner's convenience at (214) 953-6494.

Although Applicant believes no fees are due, the Commissioner is hereby authorized to charge any fees or credit any overpayments to Deposit Account No. 02-0384 of Baker Botts L.L.P.

Respectfully submitted,

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